

PRAMS: Small Area Estimation Guidelines

Release Notes, July 2024

Summary. This is the first release of county-level small area estimates using data from the Pregnancy Risk Assessment and Monitoring System (PRAMS). These Release Notes summarize indicators for the social determinants of health (SDoH) project and the maternal and child health (MCH) project, data sources, participating PRAMS jurisdictions, methods, and considerations for estimate suppression and use.

Background and Overview

In 2022, the Division of Reproductive Health (DRH), published their findings on a pilot approach to small area estimation using two maternal and infant health-related indicators from the Pregnancy Risk Assessment and Monitoring System (PRAMS) data in 23 states [1]. To continue to build capacity for small area estimation, in 2023, DRH invited PRAMS jurisdictions to share data for additional small area estimates (SAE) analysis. Goals for the projects were to model and conduct small area estimation to examine: (1) select indicators of social determinants of health (SDoH) at the county level; and (2) indicators useful to state maternal and child health (MCH) programs (e.g., Title V program annual reports and five-year needs assessments, health care accountability, reproductive justice and maternal quality of care initiatives). In this guidance document, we cover the SDoH and MCH indicators and discuss data sources, methods, and considerations for suppression and use.

Indicators

We analyzed the indicators on the following topics: problems paying rent, mortgage, or other bills before baby's birth; moving to a new address before baby's birth; homelessness before baby's birth; provider visits before pregnancy; influenza vaccination before or during pregnancy; initiation of prenatal care in the first trimester; dental cleaning during pregnancy; testing for diabetes in the postpartum visit; talks with / inquiries from providers before, during, and after pregnancy; postpartum checkup; intimate partner violence before and during pregnancy; high blood pressure before and during pregnancy; depression before, during and after pregnancy; breastfeeding; use and type of birth control after pregnancy; breastfeeding; and, infant sleep position and environment. For definitions, see Appendices 1 and 2.

Data Sources and Participating PRAMS Jurisdictions

For modeling and generating the small area estimates, we used 2017-2021 PRAMS data and 2017-2021 birth data from the National Center for Health Statistics (NCHS). We also used Census Bureau 2010 county adjacency data to identify adjacent counties for every county in the analysis. Forty PRAMS jurisdictions participated: Alabama, Alaska, Arizona, Arkansas, Colorado, Connecticut, Delaware, District of Columbia, Georgia, Hawaii, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Jersey, New Mexico, New York, North Dakota, Oregon, Pennsylvania, Rhode Island, South Dakota, Tennessee, Utah, Vermont, Virginia, Washington, Wisconsin, and Wyoming.

Methods

We applied an approach called multilevel regression with post-stratification (MRP) to develop the state model-based estimates and the county-level estimates [1] We created two data period cohorts: 2017-2019 and 2020-2021. We constructed multilevel logistic regression models for each indicator outcome for the 2017-2019 period and 2020-2021 period. In the final models, we included variables that were significantly associated with the outcome (maternal ethnicity and race as a single variable, maternal education, and payer at delivery) as the fixed effect and state-level and county-level random effects. We performed a spatial smoothing procedure for counties with no PRAMS respondents for a particular indicator by averaging the estimates of surrounding counties with respondents. We applied the multi-level model parameters to live birth counts (stratified by maternal ethnicity and race, maternal education, and payer at delivery for each county) from the NCHS 2017-2021 birth

files. We then conducted a Monte Carlo simulation to simulate 1000 samples for each indicator estimate of each period cohort. Each final county-level estimate was reported as the mean over 1000 samples.

To assess internal validity, we generated a Pearson's correlation coefficient to compare state-level model estimates to state weighted direct estimates for each

indicator. We also calculated absolute and relative confidence interval widths and highlighted estimates that jurisdictions can consider when using the estimates. Estimates were highlighted if they exceeded either an absolute confidence interval width greater than or equal to 30% of the mean estimate, or a relative confidence interval width greater than 130% of the mean estimate, or both.

Considerations for Estimate Use

PRAMS is one of the few sources of MCH data on women's experiences before, during and just after pregnancy who have had a live birth. At the county level, there is a greater paucity of MCH data to guide state and local public health initiatives. In using these estimates, PRAMS jurisdictions should consider the following.

- There are few diagnostic procedures to determine how well the multi-level models fit and no 'gold standard' for determining how well the MRP method performs.
- There are few data sources to help validate county level estimates.
- We suggest that PRAMS jurisdictions review the estimates, 95% confidence limits, the absolute and relative confidence limit widths and discuss suppression and caution with use of estimates.
- Estimates may be used by states and localities to
 - Better understand geographic disparities of specific behavioral or health indicators,
 - Help identify prevalent health issues,
 - Be used to inform and implement tailored prevention activities, and
 - Help establish health objectives and support public health decision-making.
- Small area estimates should not be used to
 - assess trends for counties because time is not included as a variable in the multilevel models,
 - evaluate the effect of local public health programs, policies, or interventions unless additional, reliable local information about public health programs is available, or
 - rank the *overall* health of any county, however, counties can be compared on individual measures.

Limitations

We note the following limitations with SAE using the PRAMS data:

- Because of sample size limitations, we did not calculate single year estimates.
- Although we pooled years of survey data, the sample size in some counties remained small (<10), which posed some challenges in modelling.
- The small area estimation process does not reduce any non-sampling errors in the survey data, such as non-response or recall biases. To the extent they exist, these errors remain within the modeling process.
- Small area estimates are model-based and are subject to measurement error (as well as self-report bias). Margins of error differ by indicator, geographic area, and scale. As a best practice, PRAMS jurisdictions should examine and report these margins of error.
- We did not account for geographic covariates (e.g., health care access or hospital density).
 - We did not include final analytic weights in MRP models, and there is no clear consensus on the need to use population weights.



References

1. Wang, Y., Tevendale, H., Lu, H. *et al.* US county-level estimation for maternal and infant health-related behavior indicators using pregnancy risk assessment monitoring system data, 2016–2018. *Popul Health Metrics* **20**, 14 (2022).

Appendix 1. Social Determinants of Health (SDoH) Indicator Definitions, Release Notes, July 2024

Indicator	Numerator and Denominator Definitions
Intimate Partner Violence Before Pregnancy (Spreadsheet Tab Name "IPV Before Preg.")	Numerator: Respondents who reported intimate partner violence (from a husband/ex-husband or partner/ex-partner) in the 12 months prior to pregnancy. Denominator: Respondents who answered 'yes' or 'no' to the following question: "In the 12 months before you got pregnant with your new baby, did any of the following people push, hit, slap, kick, choke, or physically hurt you in any other way? My Husband or Partner OR My Ex-Husband or Ex-Partner" Variable name: ipv_before (based on pab6hus and pab_xhus PRAMS Core Questionnaire variables)
Intimate Partner Violence During Pregnancy (Spreadsheet Tab Name "IPV During Preg.")	Numerator: Respondents who reported intimate partner violence (from a husband/ex-husband or partner/ex-partner) during their most recent pregnancy. Denominator: Respondents who answered 'yes' or 'no' to the following question: "During your most recent pregnancy, did any of the following people push, hit, slap, kick, choke, or physically hurt you in any other way? My Husband or Partner OR My Ex-Husband or Ex-Partner" Variable name: ipv_during (based on pad6hus and pad_xhus PRAMS Core Questionnaire variables)
Any Intimate Partner Violence (Spreadsheet Tab Name "Any IPV")	Numerator: Respondents who reported any intimate partner violence from their husband/partner or ex-husband/ex-partner prior to or during their most recent pregnancy. Denominator: Respondents who answered 'yes' or 'no' to the following questions: "In the 12 months before you got pregnant with your new baby, did any of the following people push, hit, slap, kick, choke, or physically hurt you in any other way? My Husband or Partner OR My Ex-Husband or Ex-Partner" and "During your most recent pregnancy, did any of the following people push, hit, slap, kick, choke, or physically hurt you in any other way? My Husband or Partner OR My Ex-Husband or Ex-Partner" Variable name: any_ipv (based on pab6hus, pab_xhus, pad6hus, and pad_xhus PRAMS Core Questionnaire variables)
Problems Paying Rent, Mortgage, or Other Bills (Spreadsheet Tab Name "Problems Paying Bills")	Numerator: Respondents who reported problems paying rent, mortgage, or other bills in the 12 months prior to their baby's birth. Denominator: Respondents who answered 'yes' or 'no' to the following question: "This question is about things that may have happened during the 12 months before your new baby was born. For each item, check No if it did not happen to you or Yes if it did. I had problems paying the rent, mortgage, or other bills." Variable name: bills (based on str_bil PRAMS Standard Questionnaire variable) Note: Only states that participated in the Phase 8 PRAMS Standard Questionnaire will receive this indicator

<p>Moved in the Year Before Birth (Spreadsheet Tab Name “Moved Before Birth”)</p>	<p>Numerator: Respondents who reported moving to a new address in the 12 months prior to their baby’s birth.</p>
	<p>Denominator: Respondents who answered ‘yes’ or ‘no’ to the following question: “This question is about things that may have happened during the 12 months before your new baby was born. For each item, check No if it did not happen to you or Yes if it did. I moved to a new address.”</p>
	<p>Variable name: moved (based on str_s_mov PRAMS Standard Questionnaire variable) Note: Only states that participated in the Phase 8 PRAMS Standard Questionnaire will receive this indicator</p>
<p>Homeless in the Year Before Birth (Spreadsheet Tab Name “Homeless Before Birth”)</p>	<p>Numerator: Respondents who reported homelessness in the 12 months prior to their baby’s birth.</p>
	<p>Denominator: Respondents who answered ‘yes’ or ‘no’ to the following question: “This question is about things that may have happened during the 12 months before your new baby was born. For each item, check No if it did not happen to you or Yes if it did. I was homeless or had to sleep outside, in a car, or in a shelter.”</p>
	<p>Variable name: homeless (based on strshome PRAMS Standard Questionnaire variable) Note: Only states that participate in the PRAMS Standard Questionnaire will receive this SAE indicator</p>

Appendix 2. Maternal and Child Health (MCH) Indicator Definitions, Release Notes, July 2024

Indicator	Numerator and Denominator Definitions
Health care provider visits <u>before</u> pregnancy	Numerator: Respondents who reported any health care visits in the 12 months before pregnancy
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "In the 12 months before you got pregnant with your new baby, did you have any health care visits with a doctor, nurse, or other health care worker, including a dental or mental health work?"
	Variable name: pre_vist
Type of health care provider visit before pregnancy: family doctor	Numerator: Respondents who reported a regular checkup at a family doctor's office in the 12 months before this pregnancy
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "In the 12 months before you got pregnant with your new baby, did you have any health care visits with a doctor, nurse, or other health care worker, including a dental or mental health work?"
	Variable name: pre_vist + typ_doct
Type of health care provider visit before pregnancy: OB/GYN	Numerator: Respondents who reported a regular checkup at the OB/GYN's office in the 12 months before this pregnancy
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "In the 12 months before you got pregnant with your new baby, did you have any health care visits with a doctor, nurse, or other health care worker, including a dental or mental health work?"
	Variable name: pre_vist + typ_obgn
Type of health care provider visit before pregnancy: dentist or dental hygienist	Numerator: Respondents who reported a visit to have teeth cleaned by a dentist or dental hygienist in the 12 months before this pregnancy
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "In the 12 months before you got pregnant with your new baby, did you have any health care visits with a doctor, nurse, or other health care worker, including a dental or mental health work?"
	Variable name: pre_vist + typ_dds
Type of health care provider visit before pregnancy: depression or anxiety	Numerator: Respondents who reported a visit for depression or anxiety in the 12 months before this pregnancy
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "In the 12 months before you got pregnant with your new baby, did you have any health care visits with a doctor, nurse, or other health care worker, including a dental or mental health work?"
	Variable name: pre_vist + typ_mh
Type of health care provider visit before pregnancy: family planning or birth control	Numerator: Respondents who reported a visit for family planning or birth control in the 12 months before this pregnancy
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "In the 12 months before you got pregnant with your new baby, did you have any health care visits with a doctor, nurse, or other health care worker, including a dental or mental health work?"
	Variable name: pre_vist + typ_bc

Mistimed pregnancy intent	Numerator: Respondents who wanted to be pregnant later or not at all
	Denominator: Respondents who responded to the following question: "Thinking back to just before you got pregnant with your new baby, how did you feel about becoming pregnant?"
	Variable: pgintent
Advice from health care worker about influenza vaccination	Numerator: Respondents who reported being offered or told to get a flu shot before delivery
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "During the 12 months before the delivery of your new baby, did you a doctor, nurse, or other health care worker offer you a flu shot or tell you to get one?"
	Variable name: flushot
Influenza vaccination <u>before or during</u> pregnancy	Numerator: Respondents who reported getting a flu shot before or during pregnancy
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "During the 12 months before the delivery of your new baby, did you get a flu shot?"
	Variable name: flupreg
Initiation of prenatal care in the first trimester	Numerator: Respondents who reported their first visit for prenatal care occurred in the first trimester
	Denominator: Respondents who answered the following question: "How many weeks or months pregnant were you when you have your first visit for prenatal care?"
	Variable name: pnc_1trm
Dental cleaning <u>during</u> pregnancy	Numerator: Respondents who reported that they had their teeth cleaned during the most recent pregnancy
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "During your most recent pregnancy, did you have your teeth cleaned by a dentist or dental hygienist?"
	Variable name: dds_cln
High blood pressure <u>before</u> pregnancy	Numerator: Respondents who reported having high blood pressure or hypertension before this pregnancy
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "During the 3 months before you got pregnant with your new baby, did you have any of the following health conditions?" -- High blood pressure or hypertension
	Variable name: bpg_hbp8
High blood pressure <u>during</u> pregnancy	Numerator: Respondents who reported having high blood pressure or hypertension during this pregnancy
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "During your most recent pregnancy, did you have any of the following health conditions?" -- High blood pressure or hypertension
	Variable name: morb_bp8
Depression <u>before</u> pregnancy	Numerator: Respondents who reported having depression during the 3 months before this pregnancy
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "During the 3 months before you got pregnant with your new baby, did you have any of the following health conditions?" -- Depression
	Variable name: bpg_deprs8
Depression <u>during</u> pregnancy	Numerator: Respondents who reported having depression during this pregnancy
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "During your most recent pregnancy, did you have any of the following health conditions?" -- Depression
	Variable name: mh_pgdx8

Depression <u>after</u> pregnancy	Numerator: Respondents who reported that a doctor, nurse, or other health care worker told them that they had depression
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "Since your new baby was born, has a doctor, nurse, or other health care worker told you that you had depression?"
	Variable name: pp_depress
Talks with / Inquires from doctor, nurse, or other health care worker before, during, and after pregnancy: Desire to have or not have children	Numerator: Respondents who reported talking to a doctor, nurse, or other health care worker about their desire to have or not have children
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "During any of your health care visits in the 12 months before you got pregnant, did a doctor, nurse, or other health care worker do any of the following things?" – Talk to me about my desire to have or not have children
	Variable name: pre_v and pre_kids
Talks with / Inquires from doctor, nurse, or other health care worker before, during, and after pregnancy: Improve health before a pregnancy	Numerator: Respondents who reported talking to a doctor, nurse, or other health care worker about how they could improve their health before a pregnancy
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "During any of your health care visits in the 12 months before you got pregnant, did a doctor, nurse, or other health care worker do any of the following things?" – Talk to me about how I could improve my health before a pregnancy
	Variable name: pre_v and pre_hlth
Talks with / Inquires from doctor, nurse, or other health care worker before, during, and after pregnancy: Plan to use birth control after pregnancy	Numerator: Respondents who reported that a doctor, nurse, or other health care worker asked them if they planned to use birth control after delivery
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "During any of your prenatal care visits, did a doctor, nurse, or other health care worker ask you any of the things listed below?" – If I planned to use birth control after my baby was born
	Variable name: ask_ppbc
Talks with / Inquires from doctor, nurse, or other health care worker before, during, and after pregnancy: Using drugs (e.g., marijuana, cocaine, crack, or meth) during pregnancy	Numerator: Respondents who reported that a doctor, nurse, or other health care worker asked them if they were using drugs during pregnancy
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "During any of your prenatal care visits, did a doctor, nurse, or other health care worker ask you any of the things listed below?" – If I was using drugs such as marijuana, cocaine, crack, or meth
	Variable name: ask_drug
Talks with / Inquires from doctor, nurse, or other health care worker before, during, and after pregnancy: Weight gain during pregnancy	Numerator: Respondents who reported that a doctor, nurse, or other health care worker asked them if they knew how much weight to gain during pregnancy
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "During any of your prenatal care visits, did a doctor, nurse, or other health care worker ask you any of the things listed below?" – If I knew how much weight I should gain during pregnancy
	Variable name: tlk_wgt
Talks with / Inquires from doctor, nurse, or other health care worker before, during, and after pregnancy: Emotional or physical abuse <u>before</u> pregnancy	Numerator: Respondents who reported that a doctor, nurse, or other health care worker asked them if someone was hurting them emotionally or physically
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "During any of your health care visits in the 12 months before you got pregnant, did a doctor, nurse, or other health care worker do any of the following things?" – Ask me if someone was hurting me emotionally or physically
	Variable name: pre_v and pre_abus

Talks with / Inquires from doctor, nurse, or other health care worker before, during, and after pregnancy: Emotional or physical abuse <u>during</u> pregnancy	Numerator: Respondents who reported that a doctor, nurse, or other health care worker asked them if someone was hurting them emotionally or physically
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "During any of your prenatal care visits, did a doctor, nurse, or other health care worker ask you any of the things listed below?" – If someone was hurting me emotionally or physically
	Variable name: ask_abus
Talks with / Inquires from doctor, nurse, or other health care worker before, during, and after pregnancy: Emotional or physical abuse <u>after</u> pregnancy	Numerator: Respondents who reported that a doctor, nurse, or other health care worker asked them if someone was hurting them emotionally or physically
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "During your postpartum checkup, did a doctor, nurse, or other health care worker do any of the following things?" – Ask me if someone was hurting me emotionally or physically
	Variable name: vpp_abus
Talks with / Inquires from doctor, nurse, or other health care worker before, during, and after pregnancy: Depression <u>before</u> pregnancy	Numerator: Respondents who reported that a doctor, nurse, or other health care worker asked them if they were feeling down or depressed
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "During any of your health care visits in the 12 months before you got pregnant, did a doctor, nurse, or other health care worker do any of the following things?" – Ask me if I was feeling down or depressed
	Variable name: pre_v and pre_mhdp
Talks with / Inquires from doctor, nurse, or other health care worker before, during, and after pregnancy: Depression <u>during</u> pregnancy	Numerator: Respondents who reported that a doctor, nurse, or other health care worker asked them if they were feeling down or depressed
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "During any of your prenatal care visits, did a doctor, nurse, or other health care worker ask you any of the things listed below?" – If I was feeling down or depressed
	Variable name: ask_dprs
Talks with / Inquires from doctor, nurse, or other health care worker before, during, and after pregnancy: Depression <u>after</u> pregnancy	Numerator: Respondents who reported that a doctor, nurse, or other health care worker asked them if they were feeling down or depressed
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "During your postpartum checkup, did a doctor, nurse, or other health care worker do any of the following things?" – Ask me if I was feeling down or depressed
	Variable name: vpp_depr
Postpartum checkup	Numerator: Respondents who reported having a postpartum checkup for themselves
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "Since your new baby was born, have you had a postpartum checkup for yourself?"
	Variable name: ppv_chk

Postpartum checkup plus talks with a doctor, nurse, or other health care worker about birth control methods and depression (new MCHB variable composed from several variables)	Numerator: Respondents who reported having a postpartum checkup and were asked about birth control methods and depression
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "Since your new baby was born, have you had a postpartum checkup for yourself?" And, if 'yes', also responded 'yes' to the 2 subitems: "Talk to me about birth control methods I can use after giving birth" and "Ask me if I was feeling down or depressed"
	Variable name: ppv_chk and vpp_bcm and vpp_depr
Reported that a doctor, nurse, or other health care worker tested for diabetes postpartum	Numerator: Respondents who reported being tested for diabetes at the postpartum visit
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "During your postpartum checkup, did a doctor, nurse, or other health care worker do any of the following things?" – Test me for diabetes
	Variable name: vpp_diab
Using birth control at the time of the survey (postpartum)	Numerator: Respondents who reported using some type of birth control to keep from getting pregnant
	Denominator: Respondents who answered 'yes' to the following question: "Are you or your husband or partner doing anything now to keep from getting pregnant?" and checked 'yes' to at least 1 of the options of the question: "What kind of birth control are you or your husband or partner using now to keep from getting pregnant?" that are birth control methods
	Variable name: bc_now4
Using birth control at the time of the survey: LARC / most effective birth control methods	Numerator: Respondents who reported using most effective forms of birth control
	Denominator: Respondents who answered 'yes' to the following question: "Are you or your husband or partner doing anything now to keep from getting pregnant?" and checked 'yes' to at least 1 of the following options of the question: "What kind of birth control are you or your husband or partner using now to keep from getting pregnant?" – tubes tied or blocked (female sterilization or Essure), IUD (including Mirena, ParaGard, Liletta, or Skyla), contraceptive implant in the arm (Nexplanon or Implanon)
	Variable name: bc_now4 and bcp_tube and bcp_iud and bcp_impl
Using birth control at the time of the survey: moderately effective birth control methods	Numerator: Respondents who reported using a moderately effective birth control method
	Denominator: Respondents who answered 'yes' to the following question: "Are you or your husband or partner doing anything now to keep from getting pregnant?" and checked 'yes' to at least 1 of the following options of the question: "What kind of birth control are you or your husband or partner using now to keep from getting pregnant?" – birth control pills, shots or injections (Depo-Provera), contraceptive patch (OrthoEvra) or vaginal ring (NuvaRing)
	Variable name: bc_now4 and bcp_pill and bcp_sht3 and bcp_ptrg
Using birth control at the time of the survey: most or moderately effective birth control methods	Numerator: Respondents who reported using a most or moderately effective form of birth control
	Denominator: Respondents who answered 'yes' to the following question: "Are you or your husband or partner doing anything now to keep from getting pregnant?" and checked 'yes' to at least 1 of the following options of the question: "What kind of birth control are you or your husband or partner using now to keep from getting pregnant?" – tubes tied or blocked (female sterilization or Essure), IUD (including Mirena, ParaGard, Liletta, or Skyla), contraceptive implant in the arm (Nexplanon or Implanon), birth control pills, shots or injections (Depo-Provera), contraceptive patch (OrthoEvra) or vaginal ring (NuvaRing)
	Variable name: bc_now4 and bcp_tube and bcp_iud and bcp_impl and bcp_pill and bcp_sht3 and bcp_ptrg

Breastfeeding: ever	Numerator: Respondents who reported ever breastfeeding or pumping breast milk to feed their new baby
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "Did you ever breastfeed or pump breast milk to feed your new baby, even for a short period of time?"
	Variable name: bf5ever
Breastfeeding: 4 weeks or more	Numerator: Respondents who reported breastfeeding or pumping breast milk to feed their new baby for 4 or more weeks
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "Did you ever breastfeed or pump breast milk to feed your new baby, even for a short period of time?" <u>and</u> who answered 'yes' to the following question: "Are you currently breastfeeding or feeding pumped milk to your new baby?" <u>and/or</u> who completed the following question: "How many weeks or months did you breastfeed or feed pumped milk to your baby?" and indicated 4 weeks or more
	Variable name: bf5still and bf5lngtu and bf5lngth
Breastfeeding: 8 weeks or more	Numerator: Respondents who reported breastfeeding or pumping breast milk to feed their new baby for 8 or more weeks
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "Did you ever breastfeed or pump breast milk to feed your new baby, even for a short period of time?" <u>and</u> who answered 'yes' to the following question: "Are you currently breastfeeding or feeding pumped milk to your new baby?" <u>and/or</u> who completed the following question: "How many weeks or months did you breastfeed or feed pumped milk to your baby?" and indicated 8 weeks or more / 2 months or more
	Variable name: bf5still and bf5lngtu and bf5lngth
Infant sleep position and environment recommendations: place baby on the back to sleep	Numerator: Respondents who reported being told to place their baby on his/her back to sleep
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "Did a doctor, nurse, or other health care worker tell you any of the following things?" == Place my baby on his or her back to sleep
	Variable name: slp2back
Infant sleep position and environment recommendations: place baby to sleep in a crib, bassinet, or pack and play	Numerator: Respondents who reported being told to place their baby to sleep in a crib, bassinet, or pack and play
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "Did a doctor, nurse, or other health care worker tell you any of the following things?" == Place my baby to sleep in a crib, bassinet, or pack and play
	Variable name: slp2crib
Infant sleep position and environment recommendations: place baby's crib / bed in parent's room	Numerator: Respondents who reported being told to place their baby's crib / bed in parent's room
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "Did a doctor, nurse, or other health care worker tell you any of the following things?" == Place my baby's crib or bed in my room
	Variable name: slp2myrm
Infant sleep position and environment recommendations: things that should / should not go in baby's bed	Numerator: Respondents who reported being told about things that should / should not go in baby's bed
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "Did a doctor, nurse, or other health care worker tell you any of the following things?" == What things should and should not go in bed with my baby
	Variable name: slp2ntbd

Infant sleep position and environment: baby usually slept in a crib, bassinet, or pack and play	Numerator: Respondents who reported that their new baby usually slept in a crib, bassinet, or pack and play
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "Listed below are some more things about how babies sleep. How did your new baby usually sleep in the past 2 weeks?" == in a crib, bassinet, or pack and play
	Variable name: slp_crb8
Infant sleep position and environment: baby usually slept on a twin or larger mattress or bed	Numerator: Respondents who reported that their new baby usually slept on a twin or larger mattress or bed
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "Listed below are some more things about how babies sleep. How did your new baby usually sleep in the past 2 weeks?" == on a twin or larger mattress or bed
	Variable name: slp_mat8
Infant sleep position and environment: baby usually slept on a couch, sofa, or armchair	Numerator: Respondents who reported that their new baby usually slept on a couch, sofa, or armchair
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "Listed below are some more things about how babies sleep. How did your new baby usually sleep in the past 2 weeks?" == on a couch, sofa, or armchair
	Variable name: slp_chr
Infant sleep position and environment: baby usually slept in a infant car seat or swing	Numerator: Respondents who reported that their new baby usually slept in a infant car seat or swing
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "Listed below are some more things about how babies sleep. How did your new baby usually sleep in the past 2 weeks?" == in a infant car seat or swing
	Variable name: slp_swg
Infant sleep position and environment: baby usually slept in a sleeping sack or wearable blanket	Numerator: Respondents who reported that their new baby usually slept in a sleeping sack or wearable blanket
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "Listed below are some more things about how babies sleep. How did your new baby usually sleep in the past 2 weeks?" == in a sleeping sack or wearable blanket
	Variable name: slp_sak
Infant sleep position and environment: baby usually slept with a blanket	Numerator: Respondents who reported that their new baby usually slept with a blanket
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "Listed below are some more things about how babies sleep. How did your new baby usually sleep in the past 2 weeks?" == with a blanket
	Variable name: slp_nblk
Infant sleep position and environment: baby usually slept with toys, cushions, or pillows, including nursing pillows	Numerator: Respondents who reported that their new baby usually slept with toys, cushions, or pillows, including nursing pillows
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "Listed below are some more things about how babies sleep. How did your new baby usually sleep in the past 2 weeks?" == with toys, cushions, or pillows, including nursing pillows
	Variable name: slp_toypil
Infant sleep position and environment: baby usually slept with crib bumper pads	Numerator: Respondents who reported that their new baby usually slept with crib bumper pads
	Denominator: Respondents who answered 'yes' or 'no' to the following question: "Listed below are some more things about how babies sleep. How did your new baby usually sleep in the past 2 weeks?" == with crib bumper pads
	Variable name: slp_npad

Infant sleep position and environment: baby is put on back to sleep	Numerator: Respondents who reported placing the baby on his or her back to sleep
	Denominator: Respondents who answered the following question: "In which one position do you most often lay your baby down to sleep now?"
	Variable name: sleeppos
Infant sleep position and environment: baby sleeps alone in crib or bed	Numerator: Respondents who reported that their baby always or often slept alone in his or her own crib or bed
	Denominator: Respondents who answered the following question: "In the past 2 weeks, how often has your new baby slept alone in his or her own crib or bed?"
	Variable name: sleepown
Infant sleep position and environment: baby sleeps alone in crib or bed in same room as parent	Numerator: Respondents who reported that their baby slept alone in his or her own crib or bed in the same room as parent
	Denominator: Respondents who answered the following question: "When your new baby sleeps alone, is his or her crib or bed in the same room where you sleep?"
	Variable name: slp_room